Core Elements of Outpatient Antibiotic Stewardship

The Centers for Disease Control and Prevention’s (CDC) Core Elements of Outpatient Antibiotic Stewardship provides a framework for improving antibiotic prescribing. This framework requires developing strategies and preparing individuals, facilities or organizations for change. It requires developing and testing stewardship interventions, identifying and addressing barriers to change and evaluating progress toward goals. Establishing effective interventions can protect patients and optimize clinical outcomes in outpatient health care settings. The TMF Quality Innovation Network Quality Improvement Organization works with outpatient care settings to implement these elements to help improve appropriate antibiotic prescribing.

The four core elements of outpatient antibiotic stewardship

- **Commitment** – A commitment from all health care team members to prescribe antibiotics appropriately and engage in antibiotic stewardship is critical to improving antibiotic prescribing. Clinicians can demonstrate commitment to appropriate antibiotic prescribing by doing the following:
  - Write and display public commitments in support of antibiotic stewardship
  - Identify a single leader to direct antibiotic stewardship activities within a facility
  - Include antibiotic stewardship-related duties in position descriptions or job evaluation criteria
  - Communicate with all clinic staff members to be consistent in setting patient expectations and when communicating with patients about the indications for antibiotics

- **Action for policy and practice** – Implement at least one policy or practice to improve antibiotic prescribing, assess whether it is working and modify as needed. It is important to prioritize interventions according to feasibility, acceptability, resource commitment and anticipated barriers to change. Clinicians can implement at least one of the following actions to improve antibiotic prescribing:
  - Use evidence-based diagnostic criteria and treatment recommendations
  - Use delayed prescribing practices or watchful waiting, when appropriate
  - Provide communications skills training for clinicians in addressing patient concerns regarding prognosis, benefits and harms of antibiotic treatment; management of self-limiting conditions; and clinician concerns about managing patient expectations
  - Require explicit written justification in the medical record for nonrecommended antibiotic prescribing
  - Provide support for clinical decisions with specific information in electronic or print form during the typical workflow in order to facilitate accurate diagnoses and effective management of common conditions
  - Use call centers, nurse hotlines or pharmacist consultations as triage systems to prevent unnecessary visits

- **Tracking and reporting** – Tracking and reporting clinician antibiotic prescribing can guide changes in practice and be used to assess progress in improving antibiotic prescribing. When setting up tracking and reporting systems, decide whether to track and report at the individual clinician level or at the facility level, which outcomes to track and report, and how to obtain the data for tracking and reporting. The preferred approach is to track antibiotic prescribing at the individual clinician level. Individualized feedback provided to clinicians is an effective way to promote adherence to evidence-based guidelines. Clinicians can track and report their antibiotic prescribing practices by doing at least one of the following:
  - Use evidence-based recommendations and clinical practice guidelines
  - Participate in continuing medical education and quality improvement activities to track and improve antibiotic prescribing
  - Implement at least one antibiotic prescribing tracking and reporting system
  - Assess and share performance on quality measures and established reduction goals addressing appropriate antibiotic prescribing from health care plans and payers
• **Education and expertise** – Education on appropriate antibiotic use can involve patients and clinicians. Education for patients and family members can improve health literacy and augment efforts to improve antibiotic use. Education for clinicians and clinic staff members can reinforce appropriate antibiotic prescribing and improve the quality of care. Clinicians can educate patients and families about appropriate antibiotic use, and health care system leaders can provide education to clinicians by doing at least one of the following:

  **For patients**
  o Use effective communications strategies to educate patients about when antibiotics are and are not needed
  o Educate patients about the potential harms of antibiotic treatment
  o Provide patient education materials. These materials might include information on appropriate antibiotic use, potential adverse drug events from antibiotics, and available resources regarding symptomatic relief for common infections

  **For clinicians**
  o Provide face-to-face educational training. This training can be provided by peers, colleagues or pharmacists, and uses reinforcement techniques and peer-to-peer comparisons to facilitate changes in antibiotic prescribing practices
  o Provide continuing education activities that address appropriate antibiotic prescribing, adverse drug events, and communication strategies with patients
  o Ensure timely access to persons with expertise. Persons with expertise might include pharmacists or medical and surgical consultants who can assist clinicians in improving antibiotic prescribing for patients with conditions requiring specialty care

**This framework is based on best practices across clinical settings**

The CDC’s *Core Elements of Outpatient Antibiotic Stewardship* was developed through a combination of consolidating evidence-based antibiotic stewardship practices and building on or adapting known best practices for antibiotic stewardship across other clinical settings. The CDC identified subject-matter experts in outpatient antibiotic stewardship research, implementation, policy and practice on the basis of peer-reviewed publications with representation from important outpatient specialties. Subject-matter experts were identified with expertise in pediatrics, internal medicine, family medicine, emergency medicine, infectious diseases and pharmacy. Please click here to access the CDC’s entire 2016 report, *Core Elements of Outpatient Antibiotic Stewardship.*